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TRANSACTIONS AND ABSTRACTS.

1917.

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- Zincke, Theodor**, and *K. Arnold*, 3-thiol-*p*-cresol, A., i, 263.
- Zincke, Theodor**, and *Grete Schürmann*, naphthasultam. II. Naphthasultam-quinone and its derivatives, and ketochlorides of tetrahydronaphthasultam, A., i, 38.
- Zinn, John B.**, estimation of carbon dioxide in carbonates by diminished pressure, A., ii, 270.
- Zirkel, H.** See *Alfred Heiduschka*.

- Zironi, Amilcare**, biochemical activity of agglutinated bacteria, A., i, 680.
- Zollinger, Ernst H.** See *Richard Willstätter*.
- Zsigmondy, Richard**, coagulation, A., ii, 366.
- Zsigmondy, Richard**, [with *C. Hiege*, and *Josef Reitstötter*], the nucleus method for the preparation of colloidal metallic solutions of definite properties, A., ii, 364.
- Zucker and Ruge**, technique of the diazo- and urochromogen-reactions, A., ii, 112.
- Zuntz, Nathan**, the "new" method of Gad-Andresen for estimation of carbon monoxide in the blood, A., ii, 384.
- Zvereva, (Mlle.) A. V.** See *A. V. Dumanski*.
- Zwaardemaker, Hendrik**, specific smell intensity and the electrical phenomenon of cloud-like condensed water vapours in chemical series, A., ii, 63.
- Zwaardemaker, Hendrik**, and *T. P. Feenstra*, radium as a substitute, to an equiradio-active amount, for potassium in the so-called physiological fluids, A., i, 241.
- Zyl, J. P. van**, soil solution, A., i, 439.

Anonymous, sensitive reaction of the alkaloids of the *Solanaceae*, A., ii, 160.